

Description

MULTI-FUNCTIONAL BOARD

Technical Field

- [1] The present invention relates to a board and more particularly to a multi-functional board, of which advancing direction can be freely changed according to a user's convenience and of which thrust force can be improved.

[2]

Background Art

- [3] Figures 1 and 2 illustrate a perspective view of a conventional board. More specifically, Figure 1 shows a perspective view of a conventional skateboard and Figure 2 shows a perspective view of a conventional snow board.
- [4] Referring to Figure 1, the conventional skate board 10 includes a plate 11 in the long-oval shape and a pair of wheel-sets 12 and 13, each of which has a pair of rollers. This type of the conventional skate board 10 can be advanced by the user's kicking motion on the ground. When turning the advancing direction of the skate board, the direction change can be attained by the user who tilts the skate board to either leftward or rightward relative to the advancing direction using his/her foot on the skate board.
- [5] However, the conventional skate board 10 has a problem in that it is not possible to advance the skate board without the user's kicking on the ground while running in a straight direction. Also, it is another problem in that while turning the skate board, the wheel-sets 12 and 13 may come into contact with the plate 11 if the plate 11 is over-tilted sideward exceeding a certain tilt angle.
- [6] Referring to Figure 2, the conventional snow board 20 includes a plate 21, both ends of which upwardly bent, and a pair of clamps 22 located in a middle portion of the snow board so as to enable the user's shoes to be clamped. In the conventional snow board 20, when the user starts to descend from a mountain or a hill with a certain inclination, he/she shifts his/her center of gravity forward so as to maintain descending speed. Here, if the user tries to turn the direction, it leads to a state in that one end of the snowboard locates above the snow, while the other end of the snowboard locates beneath the snow.
- [7] The conventional snow board 20 has a problem in that when the user tries to turn the direction, a radius of turning is limited according to the degree that the one end of the snow board locates beneath the snow. Further, since the user tends to periodically impart force to his/her own under part of body when he/she tries to change direction while descending, fatigue in the snow board 20 increases and results in shortage of life span thereof.

- [8] As described herein before, the conventional board has problems in it is not easy to change the advancing direction according to the user's intention and the turning radius is limited.

[9]

Disclosure of Invention

Technical Problem

- [10] The present invention is provided in order to solve the above-described problems, and it is an object of the present invention to provide a multi functional board making it possible to facilitate direction change and to improve thrust force with ease.

- [11] The other objects and advantages of the present invention will be detailed herein below and more fully understood by way of embodiments. Also, the objects and the advantages of the present inventions may be realized by means and combinations thereof as set forth in claims.

[12]

Technical Solution

- [13] A multi-functional board disclosed comprises: front and rear plates enabling a user to put his/her foot thereon and separately disposed from each other; and, at least a resilient member connecting said front and said rear plates to each other and capable of being bent or twisted.

- [14] Here, said resilient member preferably includes a plurality of leaf springs, which are equidistantly disposed in a widthwise direction of said front and said rear plates. The resilient member, however, may include synthetic resin material.

- [15] It is preferable that said plurality of the leaf springs are formed with extended holes at both ends so as to enable said plurality of leaf springs to be moved forward and backward in a lengthwise direction, and that the multi-functional board further comprises: connecting bars extended in an intersecting direction with respect to said plurality of the leaf springs; fixing brackets for securing said connecting bars to said front and said rear plates, respectively; and, springs for preventing said plurality of the leaf springs from being freely moved, one end of each of which is secured to respective ends of said plurality of the leaf spring and the other end of each of which is secured to either said front or said rear plate.

- [16] It is also preferable that the multi-functional board further comprises directional casters for making said front and said rear plates advanced, which are mounted on bottom surfaces of said front and said rear plates, respectively.

- [17] Also, the multi-functional board may further comprise boot clamps, which are attached on upper surfaces of said front and said rear plates, respectively.

- [18] Also, it is preferable that outer ends of said front and said rear plates are smoothly

inclined in an upward direction, respectively.

- [19] Also, it is preferable that the resilient member includes foldable elastic material. Here, the resilient material may include synthetic resin material, but not limited thereto.

[20]

Advantageous Effects

- [21] Above described multi functional board according to the present invention has following advantageous effects.
- [22] First, since the multi-functional board has the front and the rear plates connected only by the resilient members, it can be bent or twisted in every direction by the user according to his/her will and such bending and twisting operation can be simultaneously achieved.
- [23] Second, the multi-functional board may be easily advanced if the user only bends the front plate leftward and rightward.
- [24] Third, it is possible to obtain stability by elastic restoration force by means of the resilient members.

[25]

Brief Description of the Drawings

- [26] Figure 1 is a perspective view illustrating an example of the conventional board.
- [27] Figure 2 is a perspective view illustrating another example of the conventional board.
- [28] Figure 3 is a perspective view illustrating an embodiment of a multi-functional board according to the present invention.
- [29] Figure 4 is a cross-sectional view illustrating the multiple-functional board as illustrated in Figure 3.
- [30] Figure 5 is a perspective view illustrating another embodiment of a multi-functional board according to the present invention.
- [31] Figure 6 is a cross-sectional view taken along a line VI-VI of Figure 5.

[32]

Best Mode for Carrying Out the Invention

- [33] An embodiment according to the present invention will be more fully described hereinafter.
- [34] Figure 3 is a perspective view of an embodiment of a multi-functional board according to the present invention, and Figure 4 is a cross-sectional view of the multi-functional board as shown in Figure 3.
- [35] As may be seen from the drawings, a multi-functional board 100 of the present invention comprises: front and rear plates 110 and 120 enabling a user to put his/her

foot thereon and separately disposed from each other; and, at least a resilient member connecting the front and the rear plates 110 and 120 to each other and capable of being bent or twisted.

[36] Further, the multi-functional board 100 may further comprise directional casters 140, which are mounted to bottom surfaces of the front and the rear plates 110 and 120, respectively.

[37] As to the resilient member, more specific description will be given herein below.

[38] The resilient member comprises a plurality of leaf springs 130, which are equidistantly disposed in widthwise direction of the front and the rear plates 110 and 120.

[39] It is preferable that, at both ends of the leaf spring 130, the leaf spring 130 is formed with extension holes 134, which are laterally extended. With the extension holes 134 formed, the plurality of the leaf springs 130 can move in a lengthwise direction.

[40] The plurality of the leaf springs 130 are connected to each other by a pair of connecting bars 132, which extends in an intersecting direction with respect to the resilient members 130 at their respective ends.

[41] The pair of the connecting bars 132 are fixed to the front and the rear plates 110 and 120, respectively, by means of fixing brackets 131.

[42] In order to prevent the plurality of the leaf springs 130 with the extension holes 134 from being freely moved in the lengthwise direction, there may be provided with springs 133, one end of each of which is secured to respective ends of the plurality of the leaf spring 130 and the other end of each of which is secured to either the front or the rear plate 110 and 120.

[43] Although not illustrated in the drawings, the plurality of the leaf springs 130 may be surrounded by protection tube, which is made of flexible material.

[44] The front and the rear plates 110 and 120 of the multi-functional board 100 may be connected to each other only by the above-stated resilient members, even without such load-bearing members as pipes.

[45] If the additional load-bearing members are included, the user will not be able to easily perform the direction change of the multi-functional board because the radius of the turning is significantly restricted. Further, since the user cannot bend the front and the rear plates 110 and 120 of the multi-functional board, he cannot advance the multi-functional board with ease.

[46] However, multi-functional board 100, in which the front and the rear plates are connected to each other only by the resilient members, has advantages in that the front and the rear plates 110 and 120 are capable of being bent or twisted in every direction, and in that such bending and twisting can be done at the same time.

[47] Further, the multi-functional board 100 can be easily advanced if the user only

bends the front plate 110 leftward and rightward.

[48] Herein below, another embodiment of the multi-functional board according to the present invention will be detailed.

[49] Figure 5 is a perspective view of another embodiment of the multi-functional board according to the present invention and Figure 6 is a cross-sectional view taken along a line VI-VI of Figure 5.

[50] As may be seen from the drawings, the another embodiment of the multi-functional board 200 according to the present invention comprises: front and rear plates 210 and 220 enabling a user to put his/her foot thereon and separately disposed from each other; and at least a resilient member connecting the front and the rear plates 210 and 220 to each other and capable of being bent or twisted.

[51] Here, it is preferable that the multi-functional board 200 further includes boot clamps 240 and 250 attached to upper surfaces of the front and rear plates, respectively.

[52] Also, it is preferable to have outer both ends of the front and the rear plates 210 and 220 smoothly inclined in an upward direction, respectively.

[53] Followings are specific description regarding the resilient member.

[54] The resilient member comprises a plurality of leaf springs 230, which are equidistantly disposed in a widthwise direction of the front and the rear plates 210 and 220.

[55] It is preferable that, at both ends of the leaf spring 230, the leaf spring 230 is formed with extension holes 234, which are laterally extended. With the extension holes 234 formed, the plurality of the leaf springs 230 can move in a lengthwise direction.

[56] The plurality of the leaf springs 230 are connected to each other by a pair of connecting bars 232, which extends in an intersecting direction with respect to the resilient members 230 at their respective ends.

[57] The pair of the connecting bars 232 are fixed to the front and the rear plates 210 and 220, respectively, by means of fixing brackets 231.

[58] In order to prevent the plurality of the leaf springs 230 with the extension holes 234 from being freely moved in the lengthwise direction, there may be provided with springs 233, one end of each of which is secured to respective ends of the plurality of the leaf spring 230 and the other end of each of which is secured to either the front or the rear plates 210 and 220.

[59] Also, the plurality of the leaf springs 230 may be surrounded by a protection tube 235, which is made of flexible material.

[60] Further, those skilled in the art may understand that although the plurality of the leaf springs 230 are employed as the resilient members, either coil springs or synthetic resin material may be alternatively used, which has sufficient strength and bending or

twisting capability.

- [61] While the present invention has been particularly shown and described with reference to exemplary embodiments thereof, it will be understood by those of ordinary skill in the art that various changes in form and details may be made therein without departing from the spirit and scope of the present invention as defined by the following claims.